

# PVIA1 Valet

## Single Zone VIA!® Valet Wall Plate Installation Manual



**ELAN**®  
HOME SYSTEMS



## Important Information

**NOTE:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

**Caution:** Changes or modifications not expressly approved by ELAN could void the user's authority to operate this equipment.



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# Introduction

The PVIA1®1 Valet Precision Panel is designed to simplify the installation of ELAN VIA!®Valet and provide a reliable, logical connectivity solution. Designed to work with ALL Valet models (6.4 and 100EM), the PVIA1 has provisions for each connection type required for a complete Valet installation.

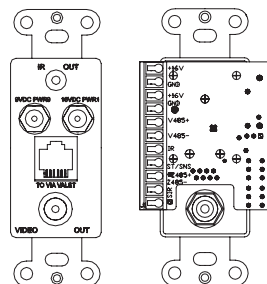
The PVIA1 Valet version is included with each VIA!Valet.

- Use in stand-alone systems wherever a VIA!Valet is needed
- Use in ELAN S Series systems wherever a VIA!Valet is needed
- Use for local system control - perfect for Home Theaters!

## Features

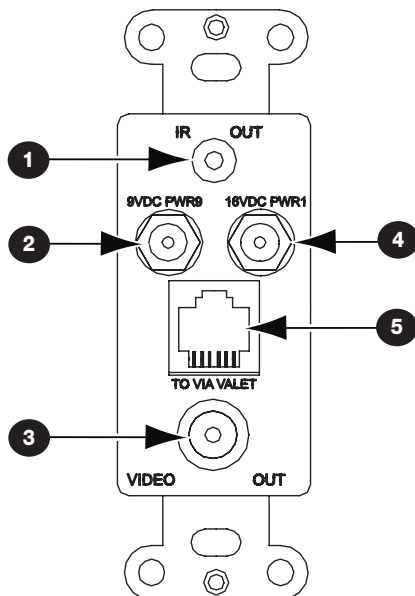
- Provides Power, IR & Video routing to a single VIA!Valet
- IR output port
- Status Sense input
- Video input (F connector-to-F connector video pass-through)
- Rear panel connector for S Series Precision Panel interface
- Single-gang Decora format
- PWR1 plug-in power supply included

A second version of the PVIA1 (the IN-WALL version) is used for non-Valet VIA!®Touch Panel installations. The PVIA1 IN-WALL version is required for use with the ELAN VIA! SC-4 and SS1 System Station RS-232 controllers. There are also instances where the two PVIA1 versions are used together.



**Figure 1-1: PVIA1 Valet**

## PVIA1 VALET Front/Rear Panel



**Figure 1-2: Front Panel Callout**

Item	Input/Output	Description
1	IR Output	3.5mm Mono Mini jack
2	9 VDC Power Sense In	9 VDC PWR Cube Connection
3	Coaxial Video Out	Coaxial Video Cable Connector
4	16 VDC Power Jack	16 VDC 1 Amp PWR1 Connection
5	RJ-45 Output	System RJ-45 Cable Jack

**Table 1-1: Front Panel Callout**

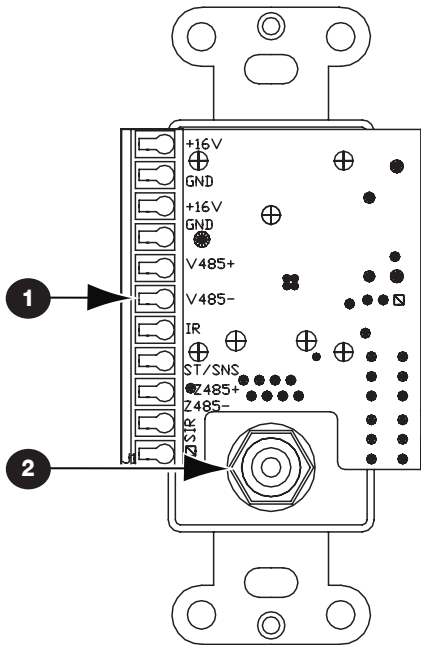


Figure 1-3: Rear Panel Callout

Item	Input/Output	Description
1	CAT-5 Terminal Strip	Terminate CAT-5 conductors
2	Coaxial Video Input	Coaxial Video Cable Connector

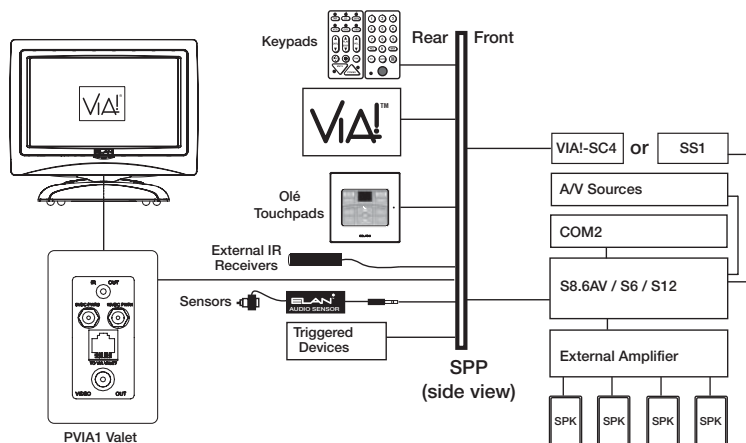
Table 1-2: Rear Panel Callout



## System Design

Proper system design ensures that all parts of a whole-house audio/video system work together to provide the desired results. Each part of the system (source A/V components, keypads, speakers, and the multi-room controller, for example) must be carefully chosen and a location specified for each device. Wiring needs must be carefully planned for. Building codes and construction methodology must be factored in to provide a safe and properly functioning system. Before beginning any installation, it is advisable to consult a set of building plans and a list of equipment and map out each part of the system. Make sure to carefully locate speakers, keypads, touchpads, touchpanels, and wire runs so as to avoid interference with other household devices such as plumbing, doors, windows, and high-current electrical wires.

System Design is typically comprised of Prewire, Rough-In, and Trim-Out. The following sections will describe each phase of the installation process as they pertain to installing ELAN VIA!Valets and the PVIA1 Precision Panel specifically.

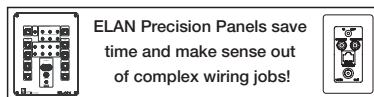
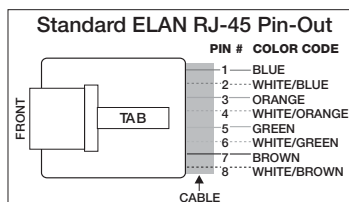


**Figure 2-1: System Design**

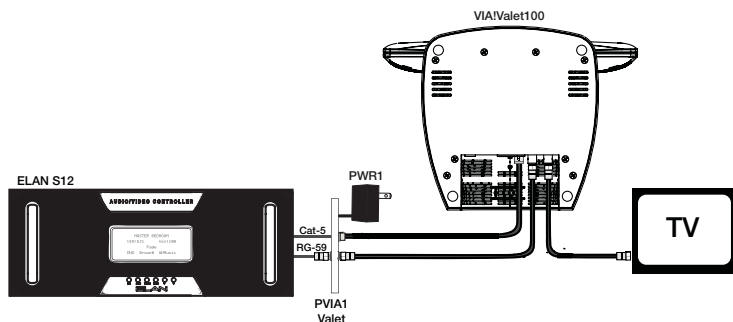
## WIRE RUNS

Runs of Cat-5 for IR and Data transmission and RG-6 or RG-59 for Video signals are required between the Valet PVIA1 and the central equipment location. If the VIA!Valet is powered locally only a single run of Cat- 5 and a single run of coax will be necessary.

If the VIA!Valet is to be powered by a power supply located at the “head-end” location of a multi-room system, refer to the table on the following page for minimum wiring requirements.



**Figure 2-2: ELAN RJ-45 Pin-Out**



**Figure 2-3: Wiring Overview**

These are the maximum wire run lengths when using the following cables to provide power to the VIA!Valet Touch Panel when the power supply is located in the “head-end”:

24 AWG Cat-5	18 AWG Stranded	16 AWG Stranded	14 AWG Stranded
<b>110 ft.</b>	<b>225 ft.</b>	<b>360 ft.</b>	<b>575 ft.</b>

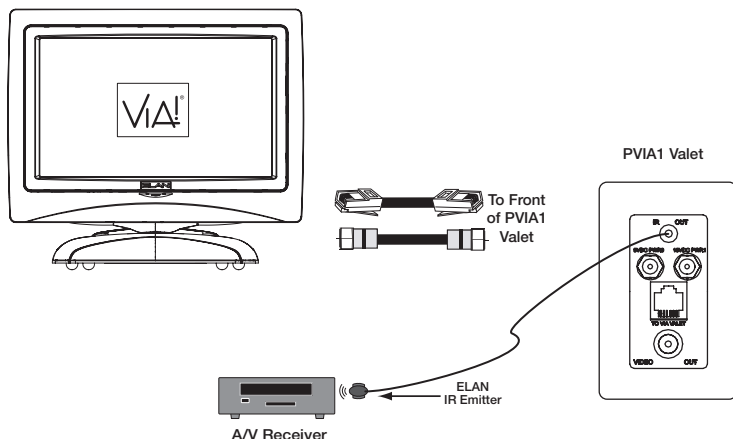
***Table 2-1: Maximum Wire Lengths***

## Applications

### Local System or Home Theater Control Using VIA!Valet

The VIA!Valet comes with a pre-terminated interface cable assembly that combines Cat-5 and RG-59 coaxial cable for the Transmission of Power, IR and Video signals between the PVIA1 Valet and the VIA!Valet Touch Panel.

The VIA!Valet can be used for any stand-alone (non-ELAN) system application or as a Home Theater controller. The **Figure 2-4** below shows a basic application using one VIA!Valet100EM, a PVIA1 Valet Wall Plate and an ELAN IR Emitter to control an A/V Receiver.

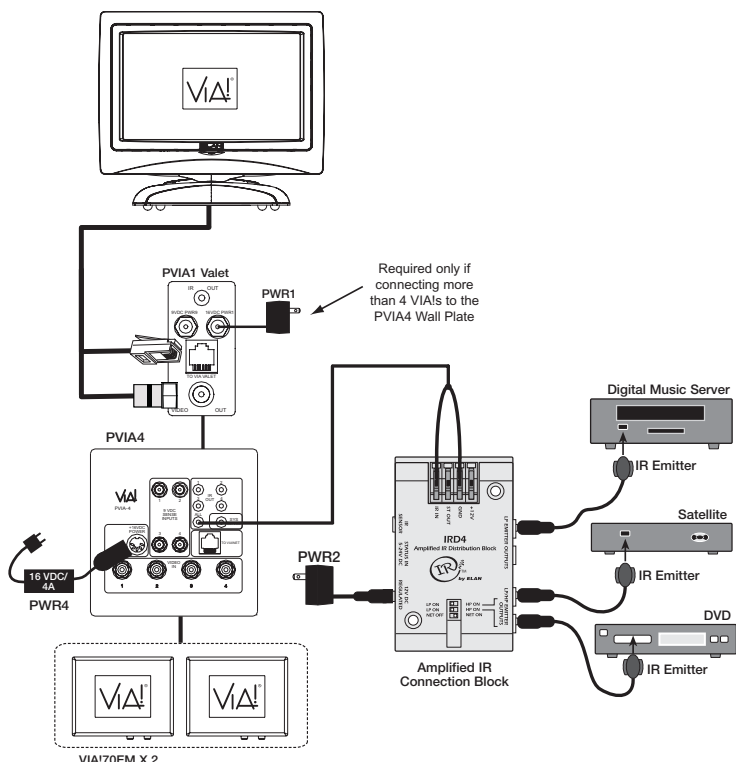


**Figure 2-4: Stand-Alone Application**

**NOTE:** When IR is connected to the front of the PVIA1 Valet, IR pass-through on the rear is disabled

## Stand-Alone System- Expanded

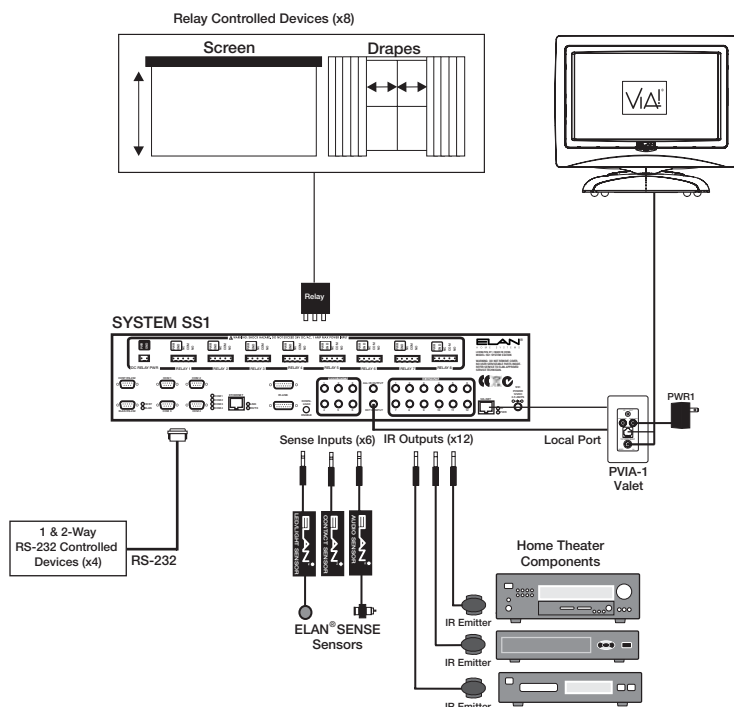
Stand-alone systems (without an ELAN multi-room controller) can be as simple as one VIA!Valet100EM controlling one IR source, or as complex as a VIA!Valet100EM, System SS1, ELAN Sensors all controlling many IR sources and Serial devices as shown in **Figure 2-6**. **Figure 2-5** below shows a VIA!Valet100EM, A PVIA1 Valet Wall Plate, two VIA!70EMs and a PVIA4 Wall Plate controlling a stack of A/V gear. See VIA!Tools for additional programming details.



**Figure 2-5: Stand-Alone Expanded Application**

## Stand-Alone System w/ RS-232 Subsystems

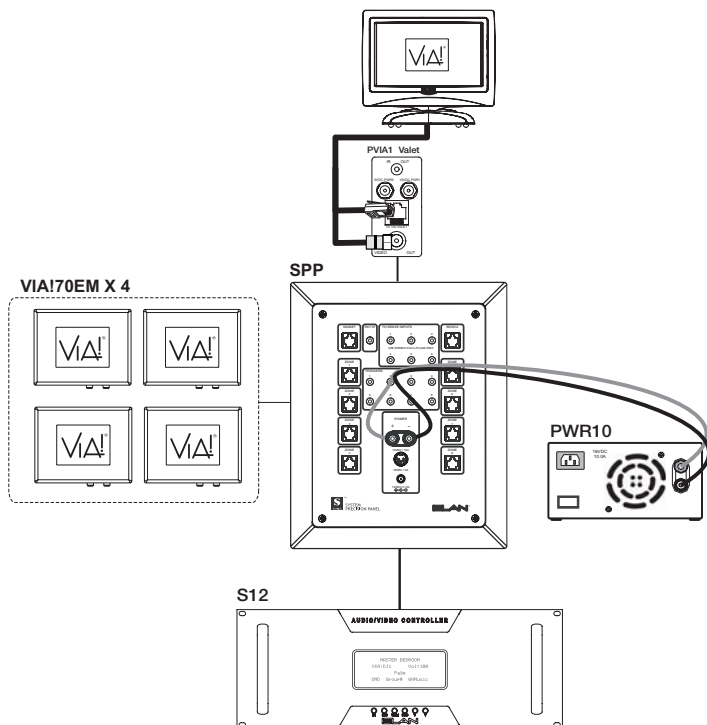
This application adds the control capabilities of an SS1 System Station to control a projection screen and drapes using relays and a 1 and 2-way RS-232 control devices. Consult the SS1 System Station manual for details.



**Figure 2-6: Stand-Alone System w/ SS1 System Station**

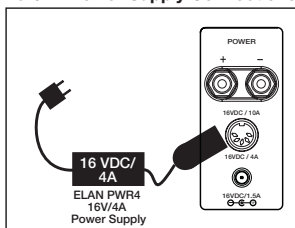
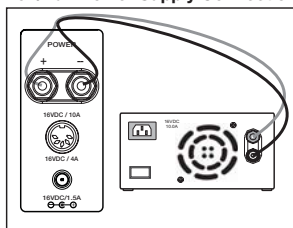
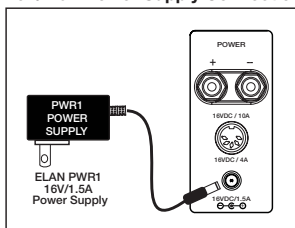
## System12 (S12)

ELAN's SPP Precision Panel for the System12 Multi-Room A/V Controller (S12) makes quick work out of configuring a VIA!Valet Touch Panel to control S12 zones. Unlike in-wall VIA!s, a PVIA1 Valet Wall Plate is necessary when using a VIA!Valet with an S12. The **Figure 2-7** below shows one VIA!Valet100EM Touch Panel, one PVIA1 Valet Wall Plate, four VIA!70EM Touch Panels, one SPP connected to an ELAN S12.



**Figure 2-7: S12 Application**

**NOTE: A PS12 Precision Panel may be used with System12 applications.**

**16V/4A Power Supply Connections****16V/10A Power Supply Connections****16V/1.5A Power Supply Connections****IMPORTANT NOTE**  
**Olé Touchpads**  
**and VIA! Touch Panels**

Use the correct power supply connected to the front of the SPP for the number of Olé Touchpads and VIA! Touch Panels in the system.

Olé = 150mA

VIA! = 1A

PWR1 = 1.5A

PWR4 = 4A

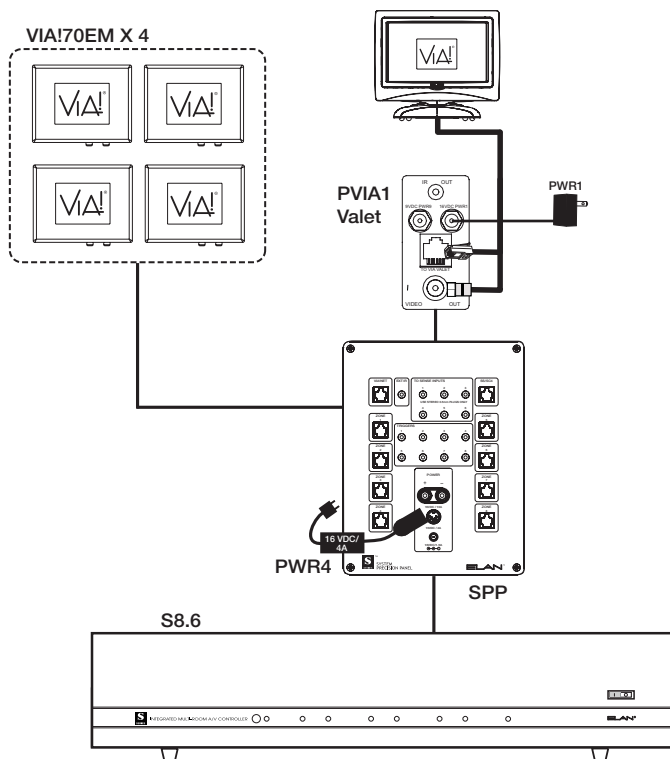
PWR10 = 10A

**Figure 2-8: VIA! Power for SPP**



## System8 (S8)

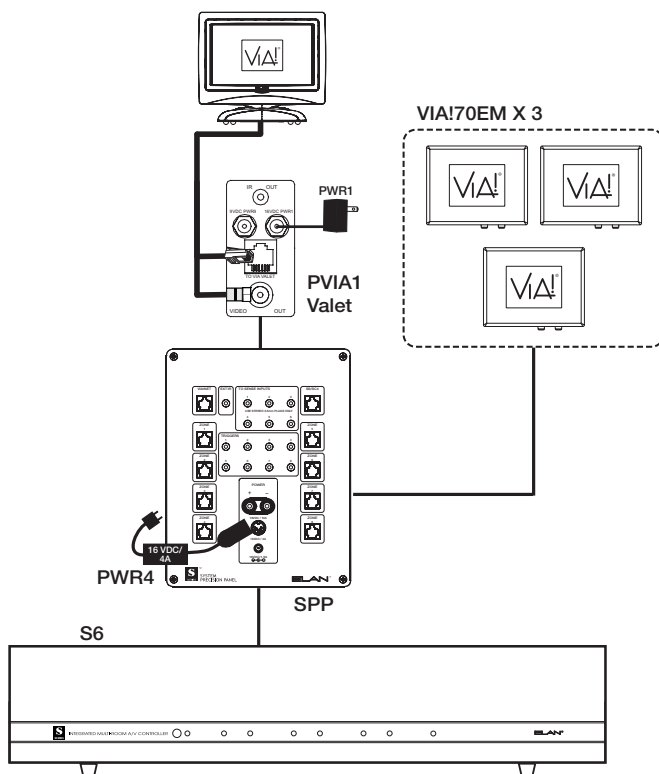
The VIA!Valet100EM's flexibility makes it a good candidate for System8 (S8.6) applications. Use a PVIA1 Valet Wall Plate for each VIA!Valet100EM to be installed. The **Figure 2-10** below shows a VIA!Valet100EM, a PVIA1 Valet Wall Plate, four VIA!70EMs and a SPP Precision Panel configured for use with an ELAN S8.6.



**Figure 2-9: S8 Application**

## System6 (S6)

The VIA!Valet100EM is ideal for System6 (S6) applications. Use a PVIA1 Valet Wall Plate for each VIA!Valet100EM to be installed. The **Figure 2-9** below shows a VIA!Valet100EM, a PVIA1 Valet Wall Plate, three VIA!70EMs and a SPP Precision Panel configured for use with an ELAN S6.



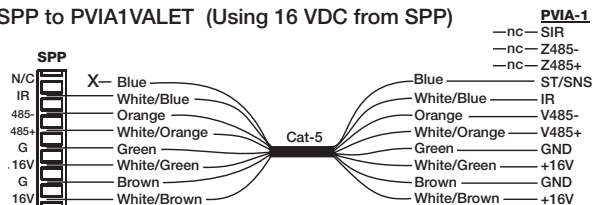
**Figure 2-10: S6 Application**

# Connections

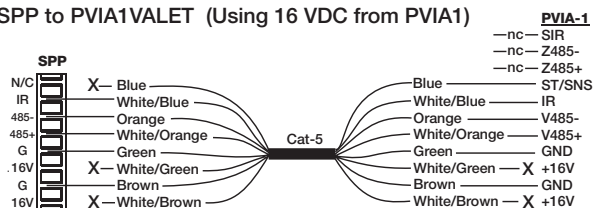
## Rear Panel

ELAN recommends using Cat-5 cable for connections to the SPP from the PVIA1 Valet. Refer to the SPP Overlay being used for the correct pin-out.

SPP to PVIA1VALET (Using 16 VDC from SPP)



SPP to PVIA1VALET (Using 16 VDC from PVIA1)



**Figure 3-1: PVIA1 Wiring**

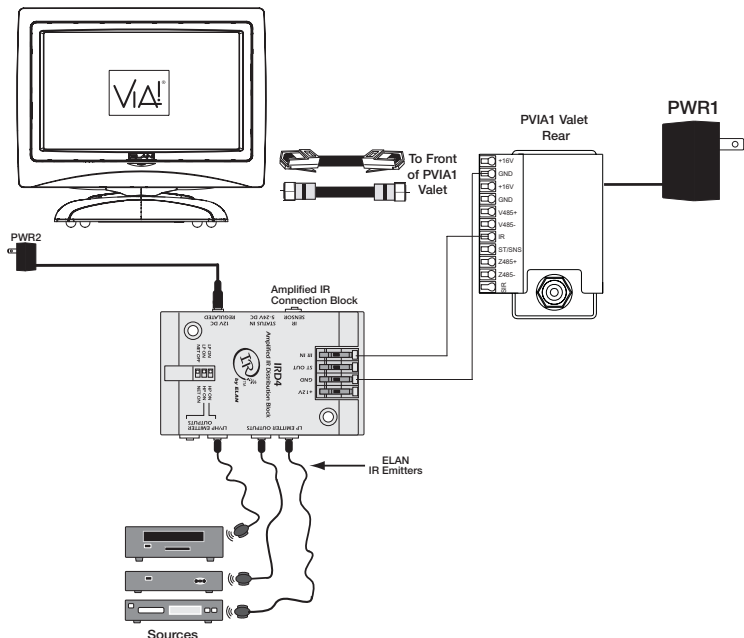
When connecting a PVIA1 Valet Wall Plate to the SPP, use either the included PVIA1 power supply connected to the PVIA1 Wall Plate, or a PWR10, PWR4 or PWR1 power supply connected to the SPP.

**DO NOT USE BOTH POWER SUPPLIES!**

## Stand-Alone/Home Theater

The VIA/Valet is ideal for use as a stand-alone system controller or Home Theater controller. For control of a Home Theater system, the VIA/Valet100EM and PVIA1 Valet Wall Plate are combined with a method for IR distribution such as ELAN's IRD4 Amplified Connection Block. Signals originate at the VIA/Valet100EM, pass through the PVIA1 Valet Wall Plate, then travel to the connection block where they are routed to each component.

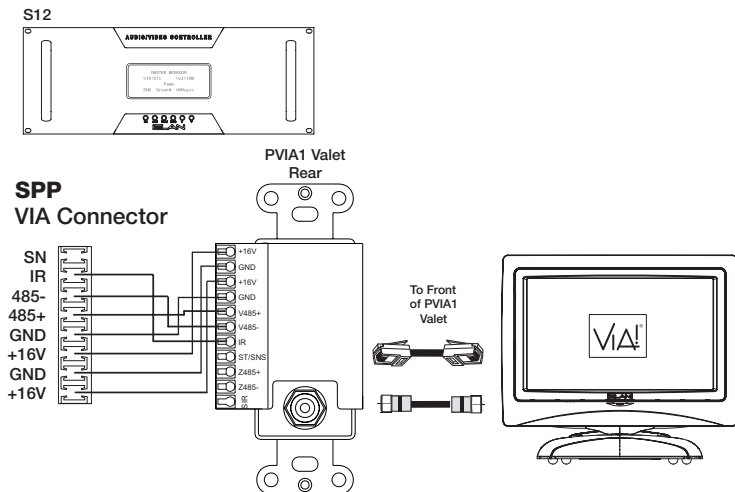
**NOTE:** This application does not allow for independent control of identical sources. An ELAN multi-room controller or SS1 System Controller should be used in that scenario.



### Figure 3-2: Stand-Alone Connections

## ELAN System12

ELAN's **System12 (S12)** Multi-Room A/V Controller was designed with VIA! Touch Panels in mind. Provisions have been made on the SPP Precision Panel for complete VIA! connectivity. Connect PVIA1 Valet Wall Plate to the VIA!Valet100EM as shown. Connect IR, RS485+/- and GND between the PVIA1 Valet Wall Plate and the SPP Precision Panel as shown. Please consult the SPP Installation Manual for additional details.



**Figure 3-3: PVIA1 Valet to SPP Connections for S12**



When connecting a PVIA1 Valet Wall Plate to the SPP, use either the included PVIA1 power supply connected to the PVIA1 Wall Plate, or a PWR10, PWR4 or PWR1 power supply connected to the SPP.

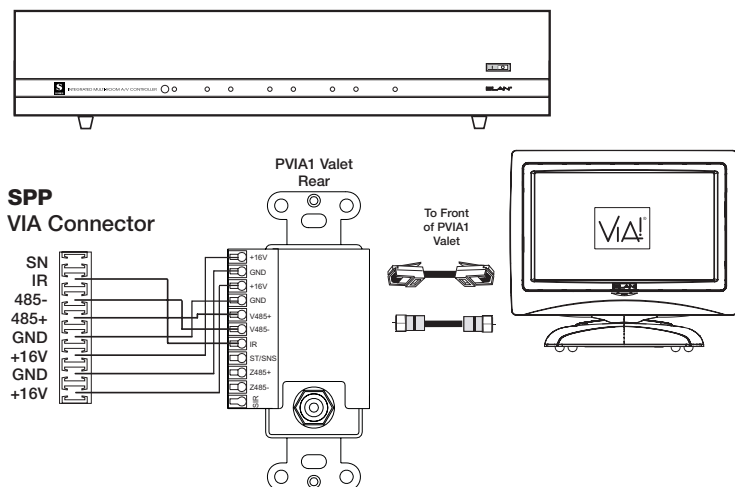
**DO NOT USE BOTH POWER SUPPLIES!**



ELAN Precision Panels save time and make sense out of complex wiring jobs!

## ELAN System8

Use a PVIA1 Valet Wall Plate and a SPP Precision Panel when installing VIA!Valets in a **System8 (S8)**. Connect the PVIA1 Valet Wall Plate to the VIA!Valet100EM as shown below. Connect IR, V485+/-, and GND between the PVIA1 Valet Wall Plate and the SPP, as shown. Multiple VIA!s will connect in the same way. Please consult the SPP Installation Manual for additional details.

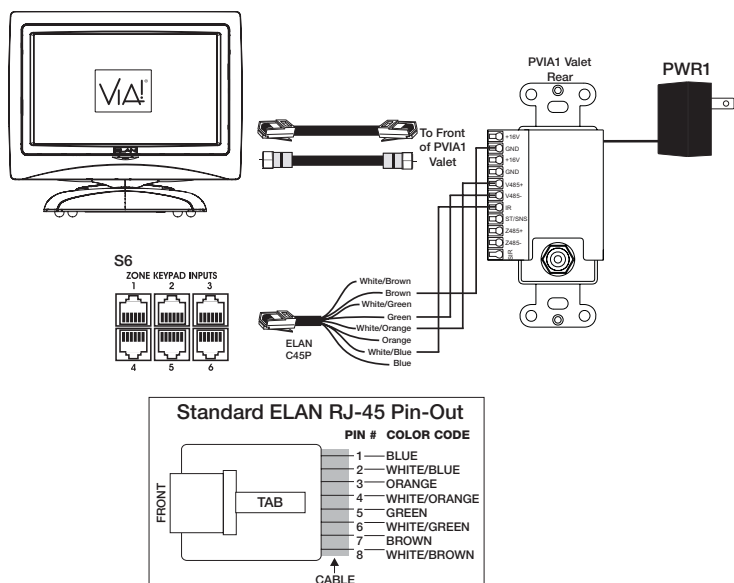


**Figure 3-4: PVIA1 Valet to SPP Connections for S8**

## ELAN System6

Use VIA!Valets to add functionality and flexibility to ELAN's **System6 (S6)** six-source, six-zone Integrated Multi-Room Controller. A PVIA1 Valet Wall Plate must be used when interfacing VIA!Valet100EM's to an S6. Connect PVIA1 Valet Wall Plate to the VIA!VALET100 as shown. Connect IR, V485+/- and GND from the PVIA1 Valet Wall Plate to an ELAN C45P, then connect to the S6 as shown below. Multiple VIA!s will connect in the same way.

**NOTE: It is recommended to use an SPP Precision Panel whenever possible. When connecting to a SPP Precision Panel see the connection diagrams for S12 and S8 or consult the SPP Precision Panel Manual for additional details.**



**Figure 3-5: S6 Connections No SPP**

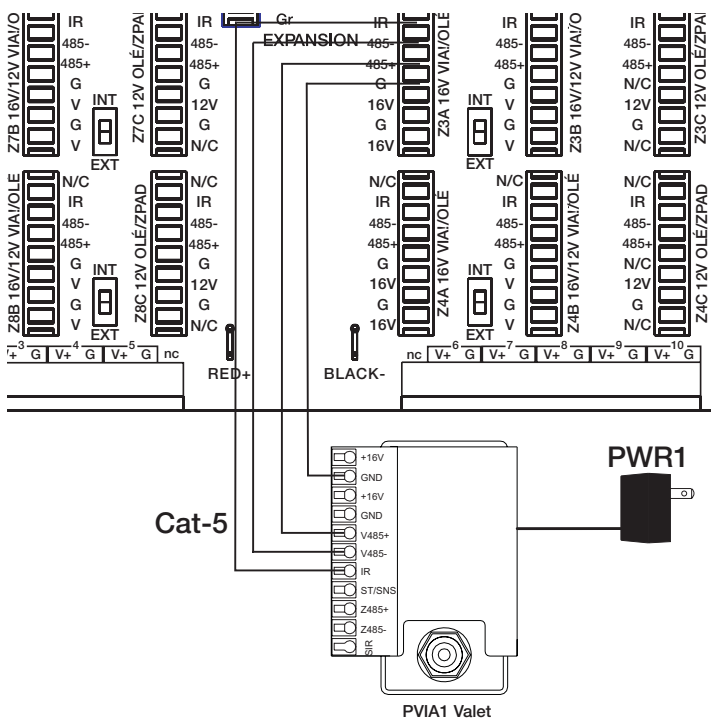
## Chaining PVIA Wall Plates

### SPP/PVIA1 Valet

The SPP Precision Panel provides power and signal routing for up to Ten VIA! Touch Panels. For each VIA!Valet, a PVIA1 Valet version needs to be connected to the SPP. Connect IR, V485+/-, and GND between the PVIA1 Valet Wall Plate and the SPP, as shown below.

VIA!Valets can be powered locally by the power supply that comes with the PVIA1, or powered by the power supply that is to be used with the SPP. The SPP has connectivity provided for a PWR1, PWR4, and PWR10 16 VDC Power Supply.

For complete SPP Applications & Connections refer to the SPP Installation Manual.



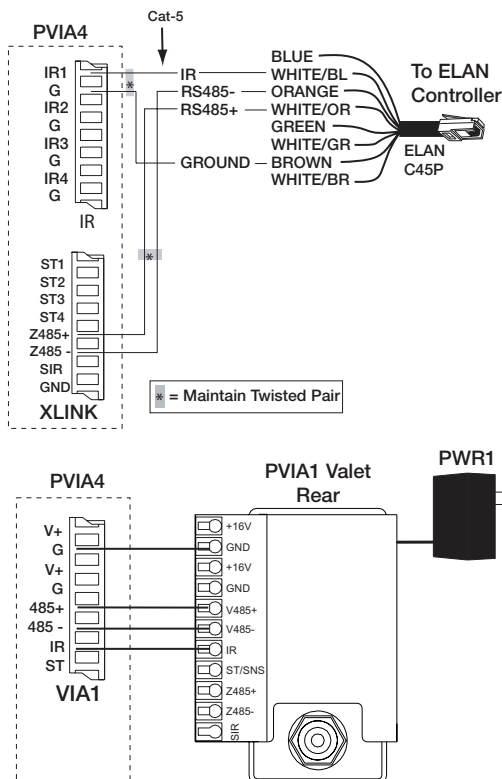
**Figure 3-6: PVIA1 Valet chained to SPP**



## PVIA4/PVIA1 Valet

In a PVIA4 application, the PWR4 Power Supply can power all four VIA!s, including a VIA!Valet if it is within 110 feet from the 'head-end'. **Figure 3-7** illustrates the use of a PWR1 Power Supply to power the PVIA1, when the PVIA1 is more than 110 feet from the PVIA4.

Connect IR, V485+/-, and GND between the PVIA1 Valet Wall Plate and the **VIA1** 110 punchdown connector on the PVIA4. Punchdown an ELAN C45P to the **XLINK** 110 connector and connect to the ELAN multi-room controller as shown below.

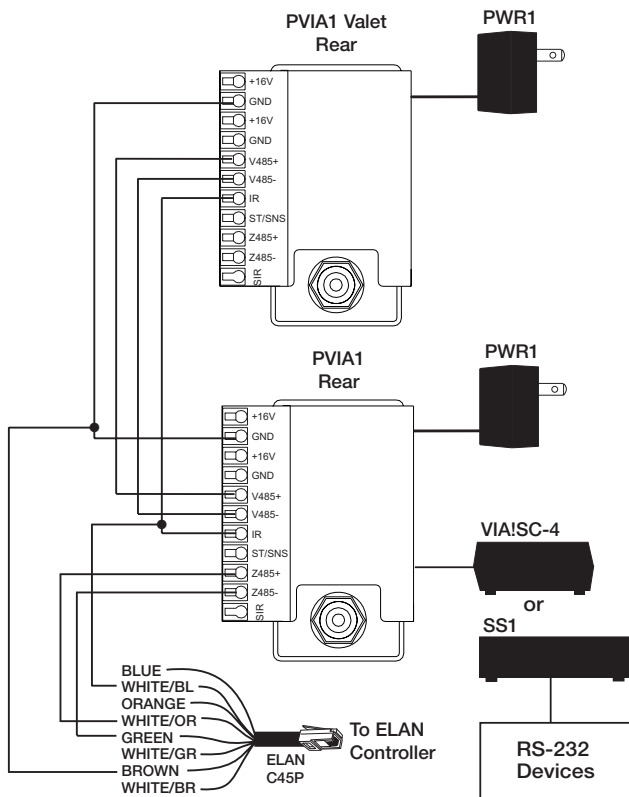


**Figure 3-7 PVIA1 Valet / PVIA4 chain**

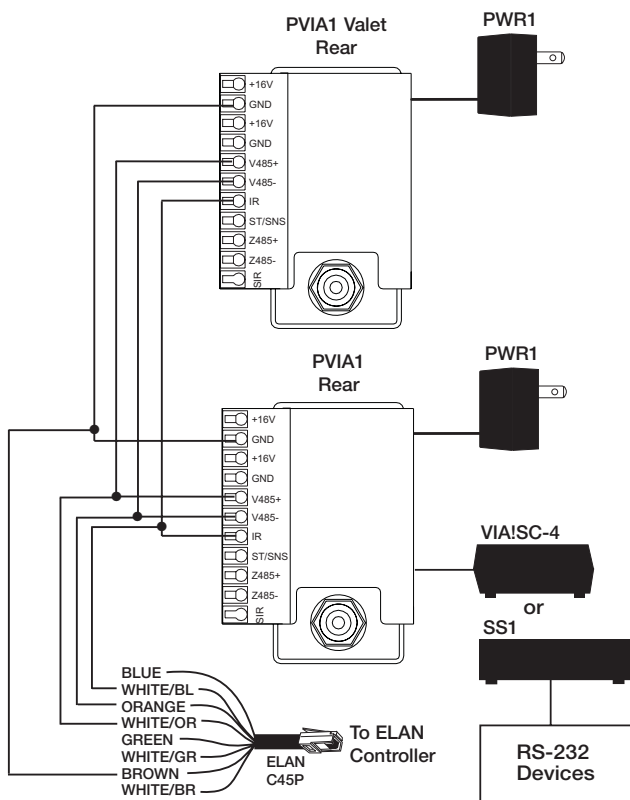
## In-Wall PVIA1/PVIA1 Valet w/SS1 or SC-4

Use the diagram in **Figure 3-8** to configure a S12/S6 system that utilizes an ELAN SS1 System Station or VIA! SC-4 System Controller. Use **Figure 3-9** to configure a S8.

Connect IR, V485+/-, and GND between the PVIA1 Valet Wall Plate and the PVIA1 Inwall Wall Plate. Connect a ELAN C45P to the screw terminal connectors and connect to the ELAN multi-room controller as shown. Connect an RJ-45 cable from the VIA!Net port on the PVIA 1 In-Wall Wall Plate and the VIA!Net port on an ELAN SC-4 or SS1 System Station.



**Figure 3-8: PVIA1 Valet to PVIA1 INWALL/S12-S6**



**Figure 3-9: PVIA1 Valet to PVIA1 INWALL/S8**

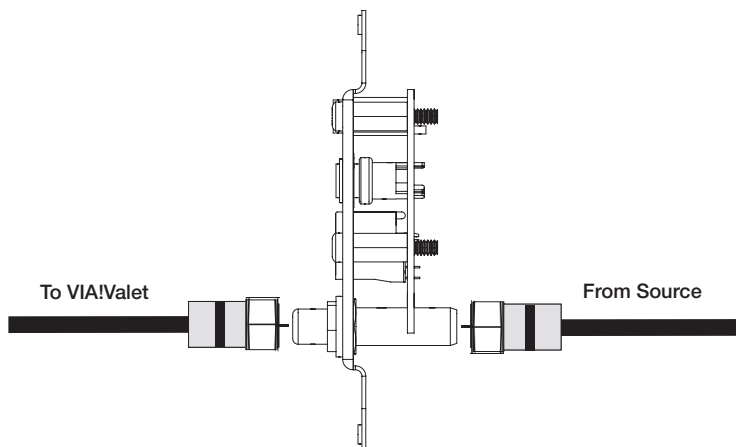
## Composite Video Connections

### Stand-Alone/Home Theater

There are many ways to integrate a VIA!Valet in a Stand-alone/Home Theater application. Many Home Theater receivers, Satellite, and Cable boxes have secondary composite video monitor ports located on them that can be used to connect to the PVIA1 Valet. Also, matrix video switchers like ELAN's Z•880 or V883 can be used to distribute video to the VIA!Valet, Projectors and TV monitors throughout the home.

The PVIA1 Valet features a pass-through coaxial video connector to conveniently allow for video access from a video source such as an Z•880, S12, S8 or V883 to a connected VIA! Valet.

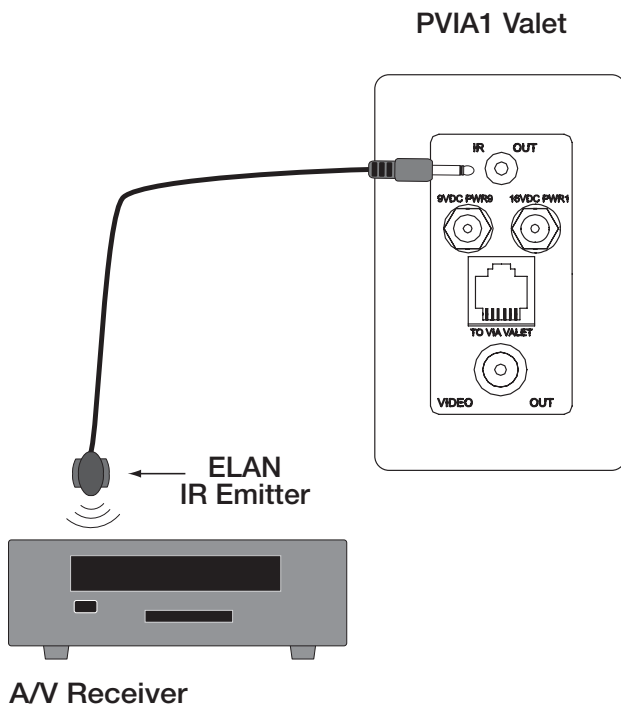
Connect the coaxial connector from the bundled cable assembly to the front panel coaxial connector of the PVIA1 Valet. RG-6 or RG-59 coaxial cable from the central equipment location is connected to the rear panel coaxial connector of the PVIA1 Valet. Use VIA!TOOLS setup software to assign video switching as required by the system's architecture. See VIA!TOOLS for detailed programming instructions.



**Figure 3-10: Pass-Through Video Connection**

## IR Out - Front

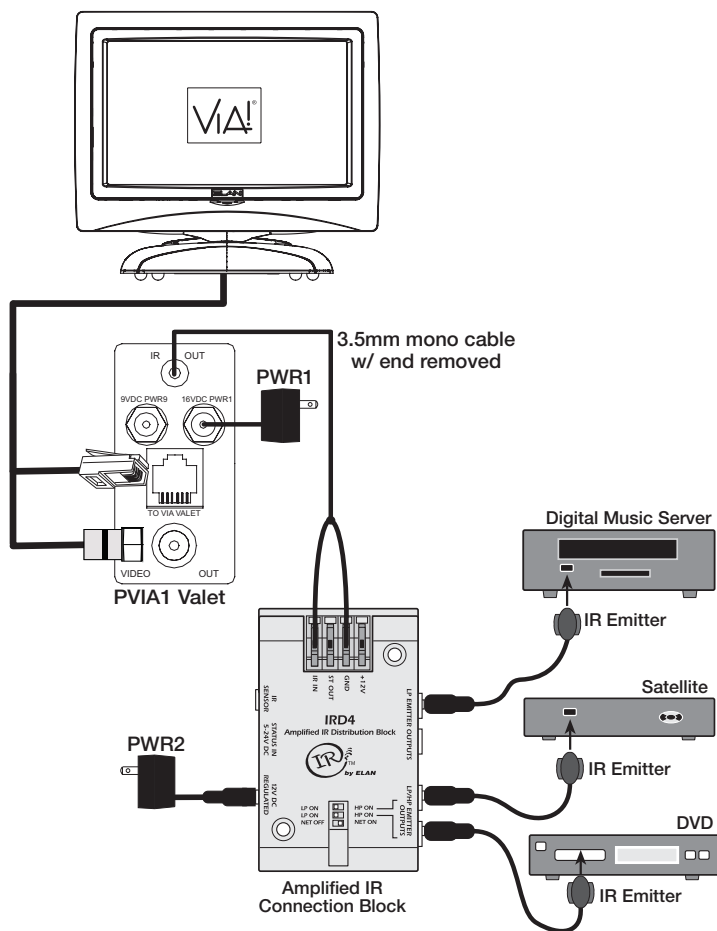
The IR OUT port is a 3.5mm mono mini jack connection typically used to control a device that is part of the main IR system in a stand-alone application. IR is routed to an emitter as shown in **Figure 3-10** or an IR distribution block connected to the IR OUT and sent to the source components with IR emitters as shown in **Figure 3-11**.



**Figure 3-11: IR OUT**

**NOTE:** When IR is connected to the front of the PVIA1 Valet, IR pass-through on the rear is disabled

## IR Out - Front Connecting Block

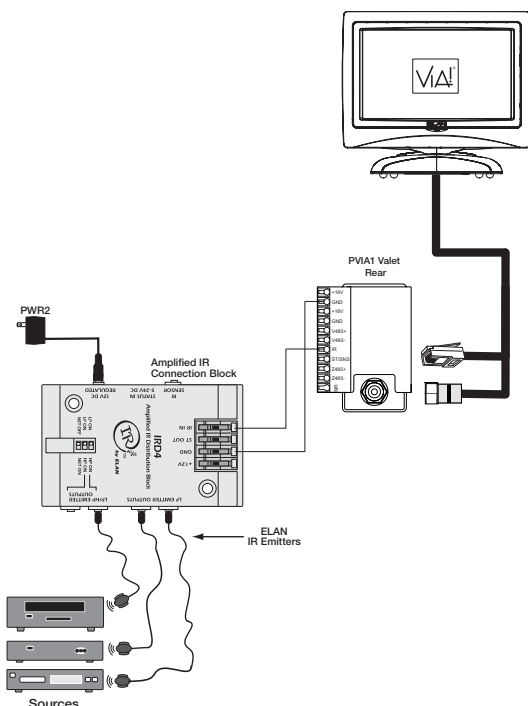


**Figure 3-12: IR Out Front to Connecting Block**

## IR Out - Rear

The ELAN IRD4 is the perfect companion to the PVIA1 Valet in a stand-alone application. The IRD4 is a single input, four output Amplified IR Connection Block designed to provide a convenient way of interconnecting IR control of source components to the PVIA1Valet. This unit includes a robust, wide-bandwidth amplifier with reverse voltage protection so that it has the ability to drive both Mini-Emitters and High-Output Emitters reliably.

Connect IR OUT and GND from the rear panel of the PVIA1Valet to CAT-5 cabling and terminate it to the IRD4 IR IN and GND. Connect IR Emitters from their Output ports and place on the source component IR Receive windows. Power up the IRD4 and with VIA!Tools programming downloaded to the VIA!Valet the sources are ready to be controlled.



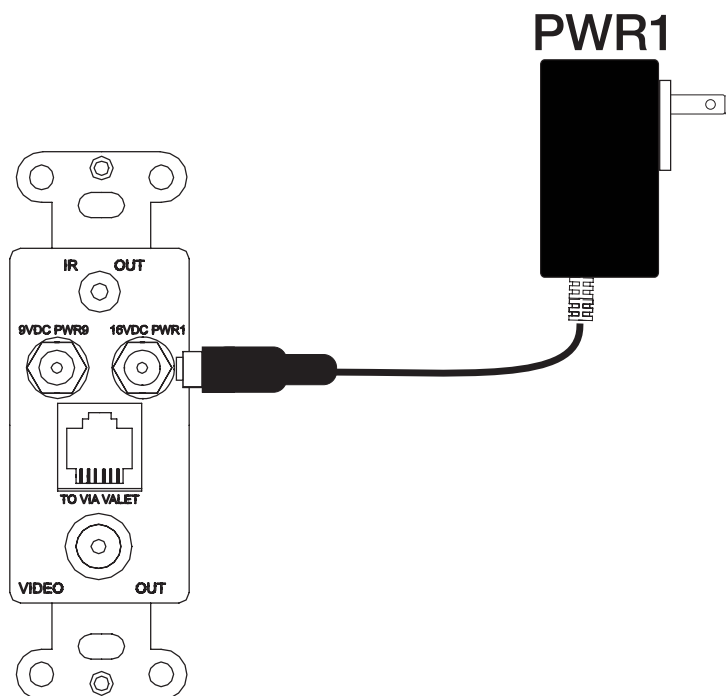
**Figure 3-13: Rear panel IR OUT to IRD4 Connecting Block**

## POWER CONNECTION

Use an ELAN PWR1 16VDC/1.5 A power supply connected to the 16VDC PWR1 connector for one VIA!Valet Touch Panel.

VIA!Valets can be powered locally by the power supply that comes with the PVIA1 Valet, or powered by the power supply that is to be used with an SPP Precision Panel is used in an ELAN Multi-Room System. The SPP has connectivity provided for a PWR1, PWR4, and PWR10 Power Supply.

For complete SPP Applications & Connections refer to the SPP Installation Manual.

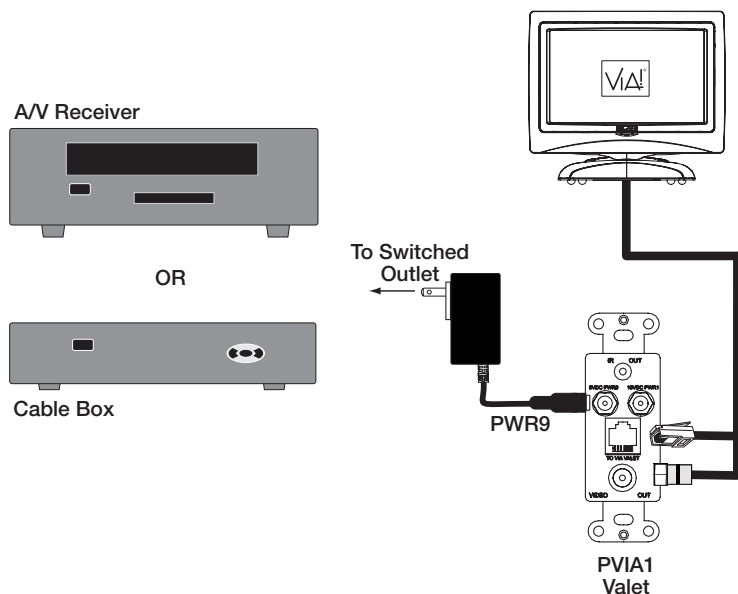


**Figure 3-14: PVIA1Valet and PWR1**



## POWER SENSE

In a stand-alone application the power status of an A/V receiver or cable box may need to be monitored when using the VIA!Valet. System ON/Off status feedback will be displayed in the feedback window at the top of the screen of the Touch Panel. Connect an ELAN PWR9 9 VDC Power Supply into the 9 VDC connector on the PVIA1 Valet and plug it into the switched outlet of the source device. The VIA! Touch Panel can then sense whether source voltage is present or not, and display feedback and execute macros based on the source power state. Power On and Power Off macros can be programmed for all Home Theater components using VIA!TOOLS. See VIA!TOOLS for detailed programming instructions.



**Figure 3-15: Power Sense Connection**

## TROUBLESHOOTING

Symptom	Cause	Solution
Valet connected to PVIA1Valet will not activate/turn-on when screen is touched	<ol style="list-style-type: none"><li>1. No Power Supply Connected</li><li>2. Incorrect Power Supply</li><li>3. Power Supply defective</li><li>4. Incorrect power connections</li></ol>	<ol style="list-style-type: none"><li>1. Connect PWR1 or PVIA1 Power Supply</li><li>2. Use PVIA1/PWR1 16VDC Power Supply</li><li>3. Test for 16VDC with a multimeter</li><li>4. Verify power connections</li></ol>
Valet connected to PVIA1Valet has no video displayed when TV or Camera icon touched	<ol style="list-style-type: none"><li>1. Video cable not connected or incorrectly connected</li><li>2. Video In/Out connected backwards</li><li>3. Video source turned off</li></ol>	<ol style="list-style-type: none"><li>1. Verify video connections</li><li>2. Connect properly</li><li>3. Turn on source</li></ol>

**Table 4-1: Troubleshooting**

## APPENDIX A: SPECIFICATIONS

Specifications	
Connections	System Port (RJ-45), Video IN (composite connector), Video OUT ("F" connector) Power Terminal, Sense Power Terminal
Wiring Requirements	Cat-5 (Data), RG-6 or RG-59 coaxial cable (Composite Video)
Power	PWR1 16VDC 1.5Amp (included), PWR9 9VDC 100mA (optional)
Unit Dimensions	Length 4.1" Width 1.9" Depth 1.5" (L 104.14mm W 48.26mm D 38.1mm)
Unit Weight	2.7 oz (0.168 lbs)

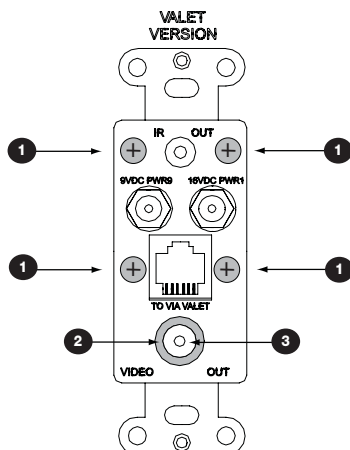
**Table A-1: Specifications**

## APPENDIX B: ADDED FEATURES

Included in the PVIA1Valet kit is a black decora trimplate and faceplate that allow customization to match the room's decor.

To change the faceplate use the following steps:

1. Loosen and remove "F" Video Connector noting nylon washer placement.
2. Remove four Phillips head screws from front faceplate, note the four nylon spacers between the faceplate and the printed circuit board.

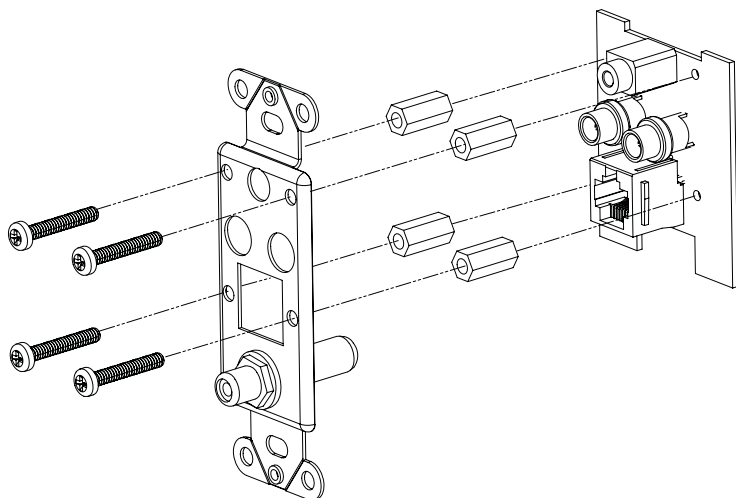


**Figure B-1: Change Faceplate**

ITEM	
1	(4) Four Phillips head screws
2	Nylon Washer
3	"F" Connector to "F" Connector

**Table B-1: Change Faceplate**

3. Remove and replace white face with optional black faceplate.
4. Replace four phillips head screws and four nylon spacers. DO NOT OVER TIGHTEN.
5. Replace “F” Video Connector making sure the nylon washer is under the Composite side of the video connector on the “Video In” side of the faceplate.



**Figure B-2: Nylon Spacer Alignment**

**Notes:**



# Limited Warranty

ELAN HOME SYSTEMS L.L.C. ("ELAN") warrants the PVIA1 Valet to be free from defects in materials and workmanship for the period of two years (2 years) from date of purchase. If within the applicable warranty period above purchaser discovers that such item was not as warranted above and promptly notifies ELAN in writing, ELAN shall repair or replace the item at the company's option. This warranty shall not apply (a) to equipment not manufactured by ELAN, (b) to equipment which shall have been installed by other than an ELAN authorized installer, (c) to installed equipment which is not installed to ELAN's specifications, (d) to equipment which shall have been repaired or altered by others than ELAN, (e) to equipment which shall have been subjected to negligence, accident, or damage by circumstances beyond ELAN's control, including, but not limited to, lightning, flood, electrical surge, tornado, earthquake, or other catastrophic events beyond ELAN's control, or to improper operation, maintenance or storage, or to other than normal use of service. With respect to equipment sold by, but not manufactured by ELAN, the warranty obligations of ELAN shall in all respects conform to the warranty actually extended to ELAN by its supplier. The foregoing warranties do not cover reimbursement for labor, transportation, removal, installation or other expenses which may be incurred in connection with repair or replacement.

Except as may be expressly provided and authorized in writing by ELAN, ELAN shall not be subject to any other obligations or liabilities whatsoever with respect to equipment manufactured by ELAN or services rendered by ELAN.

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